SANTA CRUZ BIOTECHNOLOGY, INC.

FAT1 (1634CT464.1.9): sc-517329

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The FAT proteins are members of the Cadherin superfamily homologous to the Drosophila Fat protein that functions as a positive regulator of planar cell polarity in the Drosophila wing. FAT1 is an unusual cadherin that controls cell growth and planar polarity while acting as a tumor suppressor. FAT1 is a proximal element of a signaling pathway that determines both cellular polarity in the plane of the monolayer and directed actin-dependent cell motility. FAT1 is localized at the leading edge of lamellipodia, filopodia, and microspike tips where it directly interacts with Ena/VASP proteins to regulate the actin polymerization complex. When targeted to mitochondrial outer leaflets, the cytoplasmic domain of FAT1 recruits components of the actin polymerization machinery sufficient to induce ectopic actin polymerization. FAT1 expression in vascular smooth muscle cells (VSMCs) increases significantly after arterial injury or growth factor stimulation, implicating FAT1 in the control of VSMC functions central to vascular remodeling by facilitating migration and limiting proliferation. FAT1 is also involved in psychic disorders, and its action may be of patho-physiological importance.

REFERENCES

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6. Hou, R., et al. 2006. The Fat1 cadherin integrates vascular smooth muscle cell growth and migration signals. J. Cell Biol. 173: 417-429.
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CHROMOSOMAL LOCATION

Genetic locus: FAT1 (human) mapping to 4q35.2.

SOURCE

FAT1 (1634CT464.1.9) is a mouse monoclonal antibody raised against a recombinant protein corresponding to FAT1 of human origin.

PRODUCT

Each vial contains 100 µg IgG_1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

FAT1 (1634CT464.1.9) is recommended for detection of FAT1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000).

Suitable for use as control antibody for FAT1 siRNA (h): sc-88872, FAT1 shRNA Plasmid (h): sc-88872-SH and FAT1 shRNA (h) Lentiviral Particles: sc-88872-V.

Molecular Weight of FAT1: 500 kDa.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.